

ABSTRACT OF THE DISCLOSURE

Methods and systems are provided to improve the data transmission rate of a system executing an network protocol such as TCP, by adapting the protocol according to an error rate of the system. The technique includes first establishing a connection between a receiver and transmitter according to the network protocol including establishing a data window size, the window size being an indicator of the amount of data the receiver can receive. As data segments are received, the receiver counts the number of data segments received as well the number of errored octets produced by the physical layer of the network over specified time periods. For each time period, the receiver determines whether the window size of the receiver should be changed to improve the data communication rate based on the previous window size, the number of segments received and the number of errors measured. If the window size is changed, then the receiver reestablishes communication with the transmitter using the new window size, thus altering the network protocol to optimize the overall data transmission rate.